

REMARKS

The Examiner's indication that claims 11-16 would be allowable in independent form has been noted with appreciation.

It is respectfully submitted that claims 1-10 are now allowable as a result of the combination of claims 1 and 7 coupled with a clarification of what is characterized in the Office Action as a functional recitation.

The light emitted from LED chip 21 is incident on the fluorophor 23 and results in the light being diffused, as noted in the passage of the present application which appears on page 5, line 24 to line 4, on page 6. Figure 5 shows that the light distribution characteristic D, the half reduction angle, i.e. the angle at which the brightness drops to 50%, is large at approximately 60° on each side. Compared to the coverage angle of approximately 25° on each side for this type of photograph, light is diffused over a relatively wide area. In the present invention, a linear fresnel cut is applied to a convex lens and light is made convergent with the half reduction angle of approximately 20° on the short side of the photograph and approximately 35° on the longer side of the photograph. The configuration of the light source device with the convex lens having linear fresnel cuts applied in a linear direction parallel to the arrangement direction mounted on the LED element makes light convergent with the half reduction angle when a drive is performed with a current between 3-50 times the rated current of the LED element and the lighting duration is between 10-600 msec. This enables the light from the LED element 2 with a primary low light emission volume to be adequately convergent and ensure efficient distribution of light within the range to be photographed by the camera.

As acknowledged in the Office Action, the Sommers reference teaches neither convex lenses nor lenses having fresnel cuts as linear cuts applied parallel to the

arrangement direction of the LED elements. The Arai reference has been cited to show a lens having linear fresnel cuts parallel to the longitudinal axis of the flash but does not teach or suggest a convex lens. Ishikawa has been cited to show a lens with a convex surface and fresnel cuts but those cuts are circular as can be seen in Figure 1 of that reference. While the Office Action avers that it would be obvious to combine these references, no motivation for doing so is stated. It is respectfully submitted that there is no such motivation and that the combination is being made by hindsight with the benefit of the instant specification, and that is not permissible. Nothing in these reference teaches or suggests that when the various elements are combined as set forth in claim 1, a drive at a current between 3 and 50 times the rated current and a lighting duration between 10 and 600 msec would make the light convergent at a half reduction angle of about 20° and 35° on the short and longer side of the photograph, respectfully.

In light of the foregoing considerations, it is respectfully submitted that the rejection of claim 7 under 35 U.S.C. 103 over Sommers in view of Arai and Choi and Ishikawa is not tenable and should be withdrawn. Since the feature of claim 7 has now been incorporated into claim 1 and all of the other rejected claims are dependent on claim 1, it is respectfully submitted that the prior art rejections of those other claims is also untenable and should be withdrawn. The other applied references, Chan, Kimura and Kishikawa do not cure any of the deficiencies discussed above.

In light of all of the foregoing considerations, it is respectfully submitted that this application is now in condition to be allowed and the early issuance of a Notice of Allowance is respectfully solicited.

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Respectfully submitted,

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